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Exhibit R-2, RDT&E Budget Item Justification: PB 2011 Navy									DATE: February 2010		
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 5: Development & Demonstration (SDD)				R-1 ITEM NOMENCLATURE PE 0604727N: Joint Standoff Weapon Systems							
COST (\$ in Millions)	FY 2009 Actual	FY 2010 Estimate	FY 2011 Base Estimate	FY 2011 OCO Estimate	FY 2011 Total Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost To Complete	Total Cost
Total Program Element	21.821	9.980	12.567	0.000	12.567	0.524	0.551	0.564	0.576	Continuing	Continuing
2068: Joint Standoff Weapon (JSOW)	21.821	9.980	12.567	0.000	12.567	0.524	0.551	0.564	0.576	Continuing	Continuing

A. Mission Description and Budget Item Justification

The Joint Standoff Weapon (JSOW) is an air-to-ground weapon designed to attack a variety of targets during day, night and adverse weather conditions. JSOW will enhance aircraft survivability as compared to current interdiction weapon systems by providing the capability for launch aircraft to standoff outside the range of most target area surface-to-air threat systems. The JSOW launch-and-leave capability will allow several target kills per aircraft sortie. The JSOW program first developed a baseline weapon for use against fixed area targets. JSOW is a Navy-led joint Navy/Air Force program.

The JSOW Baseline (AGM-154A) variant includes a kinematically efficient airframe, an integrated Inertial/Global Positioning System (INS/GPS) navigation capability, and a BLU-97/B or BLU-111 payload. This weapon was designed up front for pre-planned product improvements. Procurement of JSOW-A in the FYDP is deferred pending a fix to the Unexploded Ordnance (UXO) issue or a change in the inventory levels. The JSOW BLU-108 (AGM-154B) variant incorporates the Sensor Fuze Weapon submunition (BLU-108) into the baseline vehicle. Planned production of the JSOW/BLU-108 is deferred pending a change in the threat. The JSOW Unitary (AGM-154C) variant has a terminal seeker, Autonomous Target Acquisition (ATA) capability, and a Broach lethal package to enable the attack of blast/fragmentation and penetration type targets. The JSOW Unitary provides increased accuracy and lethality and the capability for aimpoint selection. Operational Testing of the JSOW-C was successfully completed in December 2004. Approval for Milestone-III/Full Rate Production was granted on 20 December 2004. JSOW-C Initial Operational Capability (IOC) was achieved in February 2005.

FY 2009-2011 Includes funding to integrate new functionality into the Joint Mission Planning Systems (JMPS) and Common Unique Planning Component (CUPC). FY 2009-2011 also includes funding for development, integration, qualification and follow-on developmental/operational test and evaluation of a Network Enabled Weapon moving target capability into the JSOW Unitary weapon (AGM-154C-1). The moving target capability will be integrated as an Engineering Change Proposal beginning with FY 2009 procured JSOW-C weapons. The new AGM-154C-1 capability will enable the weapon to attack sea moving targets via real-time pre-and post-launch targeting updates.

JSOW utilizes a "common truck" for both AGM-154A and AGM-154C variants. Through adherence to international standards for weapons interfaces, weight, and dimension considerations, JSOW is compatible with Air Force and NATO aircraft.

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APPROPRIATION/BUDGET ACTIVITY		R-1 ITEM NOMENCLATURE			
1319: Research, Development, Test & Evaluation, Navy BA 5: Development & Demonstration (SDD)		PE 0604727N: Joint Standoff Weapon Systems			
B. Program Change Summary (\$ in Millions)					
	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
Previous President's Budget	22.435	10.022	0.000	0.000	0.000
Current President's Budget	21.821	9.980	12.567	0.000	12.567
Total Adjustments	-0.614	-0.042	12.567	0.000	12.567
• Congressional General Reductions		-0.042			
• Congressional Directed Reductions		0.000			
• Congressional Rescissions	0.000	0.000			
• Congressional Adds		0.000			
• Congressional Directed Transfers		0.000			
• Reprogrammings	0.000	0.000			
• SBIR/STTR Transfer	-0.614	0.000			
• Program Adjustments	0.000	0.000	12.567	0.000	12.567
Change Summary Explanation					
Technical: Not applicable.					
Schedule:					
1) JSOW C-1 Block III/AGM-154C-1Design/Integ/Qual was changed from ending 4Q FY2009 to 4Q FY2010 due to delayed receipt of necessary hardware.					
2) JSOW IT&E was changed from 2Q-3Q FY2010 to 1Q-2Q FY2011 due to delayed receipt of necessary hardware and airframe Operational Flight Program (OFP) delays.					
3) JSOW FRP-6 was changed from 1Q to 2Q FY2010 due to delay in receipt of contractor pricing.					
4) JSOW OT-111B was changed from 4Q FY2010 to 3Q-4Q FY2011 due to delayed receipt of necessary hardware and airframe Operational Flight Program (OFP) delays..					
5) DT-IIID is changed from ending 2Q 2010 to 4Q 2010 due to delayed receipt of necessary hardware and airframe Operational Flight Program (OFP) delays.					
FY11 from previous President's Budget is shown as zero because no FY11-15 data was presented in President's Budget 2010.					

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Exhibit R-2A, RDT&E Project Justification: PB 2011 Navy								DATE: February 2010			
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 5: <i>Development & Demonstration (SDD)</i>				R-1 ITEM NOMENCLATURE PE 0604727N: <i>Joint Standoff Weapon Systems</i>				PROJECT 2068: <i>Joint Standoff Weapon (JSOW)</i>			
COST (\$ in Millions)	FY 2009 Actual	FY 2010 Estimate	FY 2011 Base Estimate	FY 2011 OCO Estimate	FY 2011 Total Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost To Complete	Total Cost
2068: <i>Joint Standoff Weapon (JSOW)</i>	21.821	9.980	12.567	0.000	12.567	0.524	0.551	0.564	0.576	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		
A. Mission Description and Budget Item Justification Includes RDT&E funds for the development of a weapon to be employed by aircraft to attack targets during day, night, and adverse weather conditions. The Advanced Interdiction Weapon Systems (AIWS) design will capitalize on aircraft sensor capabilities and minimize individual weapon sophistication, reducing unit cost and provides a significant increase in strike warfare capability. Excludes civilian and military manpower and thier related costs and military construction costs which are included in appropriate management and support elements in this program.											
B. Accomplishments/Planned Program (\$ in Millions)											
						FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total	
Network Enabled Weapon Develop and integrate the Network Enabled Weapon moving target capability into JSOW-C, termed AGM-154C-1. <i>FY 2009 Accomplishments:</i> Provided seeker software updates to enable receipt of revised target coordinates after missile launch, the integration of a weapon datalink, and the update of the F/A-18 Operational Flight Program (OFP) to incorporate the AGM-154C-1 changes. <i>FY 2010 Plans:</i> Includes funding to commence weapon qualification and follow-on developmental test/operational test efforts.						21.200	3.305	10.314	0.000	10.314	

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B. Accomplishments/Planned Program (\$ in Millions)						
		FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
FY 2011 Base Plans: Includes funding to complete weapon qualification and follow-on developmental test/operational test efforts.						
JSOW Common Unique Planning Component Plan new functions into the JSOW Common Unique Planning Component (CUPC) and develop new software releases of CUPC. Address new mission planning functionality related to the incorporation of the Network Enabled Weapon moving target capability into the JSOW-C-1 weapons. FY 2009 Accomplishments: Core JSOW C-1 mission planning functionality incorporated in CUPC. FY 2010 Plans: Continue integration of JSOW C-1 functionality. FY 2011 Base Plans: Begin interoperability efforts for JSOW C-1		0.621	0.061	0.070	0.000	0.070
JSOW TIK Crypto Component Integrate and qualify a replacement crypto component into the JSOW Telemetry Instrumentation Kit (TIK). Efforts will involve the development, integration and range safety certification of a new National Security Agency developed crypto component to replace the KGV-68B. FY 2010 Plans: Define requirements and develop implementation strategy FY 2011 Base Plans: Implement TIK Crypto component strategy		0.000	6.614	2.183	0.000	2.183

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B. Accomplishments/Planned Program (\$ in Millions)											
							FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
Accomplishments/Planned Programs Subtotals							21.821	9.980	12.567	0.000	12.567
C. Other Program Funding Summary (\$ in Millions)											
Line Item	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total	FY 2012	FY 2013	FY 2014	FY 2015	Cost To Complete	Total Cost
• USN WP,N BLI 223000: <i>JSOW</i>	142.622	141.997	131.141	0.000	131.141	147.120	149.902	167.703	170.367	1,163.245	2,779.094
D. Acquisition Strategy											
<p>The contracting strategy for JSOW is planned to be sole source for the life of the program. Cost type contracts are utilized for the Engineering and Manufacturing Development and follow-on modification program (i.e., Block II (AGM-154C), AGM-154C-1 efforts. Component breakout is used, when possible, to promote full and open competition.</p> <p>Fixed price type contracts are utilized for production.</p>											
E. Performance Metrics											
<p>The JSOW C-1 program is meeting the cost schedule, performance, funding and life cycle sustainment in accordance with the Acquisition Program Baseline. Production delivery currently 94 months of on-time deliveries.</p>											

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2011 Navy											DATE: February 2010		
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 5: <i>Development & Demonstration (SDD)</i>				R-1 ITEM NOMENCLATURE PE 0604727N: <i>Joint Standoff Weapon Systems</i>				PROJECT 2068: <i>Joint Standoff Weapon (JSOW)</i>					
Product Development (\$ in Millions)													
				FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Primary Hardware Development-NEW	SS/CPFF	Raytheon Systems Tucson, AZ	59.133	3.005	Dec 2009	5.514	Dec 2010	0.000		5.514	0.000	67.652	83.730
Primary Hardware Development - TIK Crypto	SS/CPFF	Raytheon Systems Tucson, AZ	0.000	5.986	Dec 2009	1.734	Dec 2010	0.000		1.734	0.000	7.720	7.720
System Engineering	MIPR	National Security Agency Maryland	0.207	0.108	Feb 2010	0.000		0.000		0.000	0.000	0.315	Continuing
System Engineering	WR	Naval Research Lab Maryland	0.630	0.175	Feb 2010	0.000		0.000		0.000	0.000	0.805	Continuing
System Engineering	WR	NAWCWD China Lake, CA	108.698	0.000		0.000		0.000		0.000	0.000	108.698	Continuing
All Management costs from program implementation through FY10 not reflected above	Various/ Various	Various Various	601.040	0.000		0.000		0.000		0.000	0.000	601.040	Continuing
Subtotal			769.708	9.274		7.248		0.000		7.248	0.000	786.230	91.450
Remarks The target value of the contract exceeds the JSOW funding because the Harpoon Block III (PE0604227N PU1843) program shares a portion of the Strike Common Weapons Data Link (SCWDL) development costs.													

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Support (\$ in Millions)													
				FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Software Development - JMPS	SS/CPFF	Raytheon Systems Tucson, AZ	5.565	0.062	Dec 2009	0.073	Dec 2010	0.000		0.073	2.348	8.048	8.048
Software Development-NEW	SS/CPFF	Boeing St. Louis, MO	8.007	0.000		0.000		0.000		0.000	0.000	8.007	8.007
Subtotal			13.572	0.062		0.073		0.000		0.073	2.348	16.055	16.055
Remarks													
Test and Evaluation (\$ in Millions)													
				FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Dev Test and Evaluation	WR	NAWCWD China Lake, CA	27.837	0.247	Dec 2009	0.296	Dec 2010	0.000		0.296	0.000	28.380	Continuing
Oper Test and Evaluation	WR	COMOPTEVFOR Norfolk, VA	10.725	0.397	Apr 2010	4.950	Apr 2011	0.000		4.950	0.000	16.072	Continuing
Subtotal			38.562	0.644		5.246		0.000		5.246	0.000	44.452	
Remarks													

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Management Services (\$ in Millions)													
				FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Travel	Various/ Various	NAVAIR Patuxent River, MD	7.243	0.000		0.000		0.000		0.000	0.000	7.243	Continuing
All Management costs from program implementation through FY10 not reflected above	Various/ Various	Various Various	18.261	0.000		0.000		0.000		0.000	0.000	18.261	Continuing
Subtotal			25.504	0.000		0.000		0.000		0.000	0.000	25.504	
Remarks													
			Total Prior Years Cost	FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			847.346	9.980		12.567		0.000		12.567	2.348	872.241	107.505
Remarks													

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Exhibit R-4, RDT&E Schedule Profile: PB 2011 Navy																			DATE: February 2010										
APPROPRIATION/BUDGET ACTIVITY										R-1 ITEM NOMENCLATURE										PROJECT									
1319: Research, Development, Test & Evaluation, Navy BA 5: Development & Demonstration (SDD)										PE 0604727N: Joint Standoff Weapon Systems										2068: Joint Standoff Weapon (JSOW)									
Fiscal Year		2009				2010				2011				2012				2013				2014				2015			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
JSOW																													
Production Milestones																													
LRIP/FRP AGM-154C/C-1			▲				△				△				△				△				△			△			
			FRP-5				FRP-6				FRP-7				FRP-8				FRP-9				FRP-10			FRP-11			
Deliveries/AGM-154C			FRP-3			FRP-4																							
Deliveries/AGM-154C-1										FRP-5			FRP-6			FRP-7			FRP-8				FRP-9					FRP-10	
SAASM / Block II																													
T & E Milestones																													
Operational Test																													
Operational Test																													
Network Enabled Weapon																													
Moving Target Capability (Block III)																													
Engineering Milestones																													
Design/Integration/Qual																													
Development Test/																													
Operational Test																													

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Exhibit R-4A, RDT&E Schedule Details: PB 2011 Navy			DATE: February 2010
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 5: <i>Development & Demonstration (SDD)</i>	R-1 ITEM NOMENCLATURE PE 0604727N: <i>Joint Standoff Weapon Systems</i>	PROJECT 2068: <i>Joint Standoff Weapon (JSOW)</i>	

Schedule Details

Event	Start		End	
	Quarter	Year	Quarter	Year
FRP-3 Deliveries AGM-154C	1	2009	3	2009
FRP Award AGM-154C FRP-5	2	2009	2	2009
FRP-4 Deliveries AGM-154C	4	2009	2	2010
FRP Award AGM-154C FRP-6	2	2010	2	2010
FRP-5 Deliveries- AGM-154C-1	2	2010	2	2011
FRP Award AGM-154C FRP-7	2	2011	2	2011
FRP-6 Deliveries- AGM-154C-1	2	2011	2	2012
FRP Award AGM-154C FRP-8	1	2012	1	2012
FRP-7 Deliveries- AGM-154C-1	2	2012	2	2013
FRP Award AGM-154C FRP-9	1	2013	1	2013
FRP-8 Deliveries- AGM-154C-1	2	2013	2	2014
FRP Award AGM-154C FRP-10	1	2014	1	2014
FRP-9 Deliveries- AGM-154C-1	2	2014	2	2015
FRP Award AGM-154C FRP-11	1	2015	1	2015
FRP-10 Deliveries- AGM-154C-1	2	2015	4	2015
SAASM - Operational Test (OT-III A)	1	2009	2	2009
SAASM - Final OT Report	2	2009	2	2009
Network Enables Weapon/Moving Target/AGM-154C-1 Design/Integration/Qual	1	2009	4	2010

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Exhibit R-4A, RDT&E Schedule Details: PB 2011 Navy			DATE: February 2010																									
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 5: <i>Development & Demonstration (SDD)</i>		R-1 ITEM NOMENCLATURE PE 0604727N: <i>Joint Standoff Weapon Systems</i>		PROJECT 2068: <i>Joint Standoff Weapon (JSOW)</i>																								
		<table> <tr> <th rowspan="2">Event</th><th colspan="2">Start</th><th colspan="2">End</th></tr> <tr> <th>Quarter</th><th>Year</th><th>Quarter</th><th>Year</th></tr> <tr> <td>Network Enables Weapon/Moving Target/AGM-154C-1 Development Test (DT-IIID)</td><td align="center">1</td><td align="center">2009</td><td align="center">4</td><td align="center">2010</td></tr> <tr> <td>Network Enables Weapon/Moving Target/AGM-154C-1 Integrated Test (IT&E)</td><td align="center">1</td><td align="center">2011</td><td align="center">2</td><td align="center">2011</td></tr> <tr> <td>Network Enables Weapon/Moving Target/AGM-154C-1 Operational Test (OT-IIIB)</td><td align="center">3</td><td align="center">2011</td><td align="center">4</td><td align="center">2011</td></tr> </table>			Event	Start		End		Quarter	Year	Quarter	Year	Network Enables Weapon/Moving Target/AGM-154C-1 Development Test (DT-IIID)	1	2009	4	2010	Network Enables Weapon/Moving Target/AGM-154C-1 Integrated Test (IT&E)	1	2011	2	2011	Network Enables Weapon/Moving Target/AGM-154C-1 Operational Test (OT-IIIB)	3	2011	4	2011
Event	Start		End																									
	Quarter	Year	Quarter	Year																								
Network Enables Weapon/Moving Target/AGM-154C-1 Development Test (DT-IIID)	1	2009	4	2010																								
Network Enables Weapon/Moving Target/AGM-154C-1 Integrated Test (IT&E)	1	2011	2	2011																								
Network Enables Weapon/Moving Target/AGM-154C-1 Operational Test (OT-IIIB)	3	2011	4	2011																								

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